

REMARKS

The present application has been reviewed in light of the Office Action dated July 28, 2009. Claims 1-4 and 6-16 are presented for examination, of which Claims 1, 2, and 10-15 are in independent form. Claims 1-4 and 7-15 have been amended to define aspects of Applicants' invention more clearly. Favorable reconsideration is requested.

The Office Action states that Claims 1-3, 6-9, 11-13, 15, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2004/0102192 (*Serceki*); that Claims 10 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by a document entitled "The Windows XP Wireless Zero Configuration Service" (*Zero*); and that Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Serceki* in view of U.S. Patent No. 6,529,522 (*Ito et al.*). For at least the following reasons, Applicants traverse these rejections and submit that independent Claims 1, 2, and 10-15, together with the claims dependent therefrom, are patentably distinct from the cited prior art.

The aspect of the present invention set forth in Claim 1 is directed to a wireless communication system that includes first and second wireless communication devices. The first wireless communication device includes an interface unit, a first detection unit, a first connection unit, a first transmission unit, a second detection unit, a display unit, and a control unit. The interface unit receives a selection of a data processing function selected by an operator. The first detection unit detects a plurality of beacons at a plurality of frequencies. To search for a wireless communication device capable of performing the data processing function selected by the operator via the interface unit, the first connection unit connects to a network configured by a base station that transmitted a beacon detected by the first detection unit, in accordance with network identification information included in the beacon detected by the first detection unit, and

the first transmission unit transmits a search request signal to a wireless device connected to the network connected to by said first connection unit. Based on a response signal that the wireless communication device, which is connected to the network connected to by first the connection unit, has transmitted in response to the search request signal transmitted by the first transmission unit. The second detection unit detects, among wireless communication devices connected to the network connected to by said first connection unit, a wireless communication device capable of performing the data processing function selected by the operator. The display unit selectably displays information associated with the wireless communication device detected by the second detection unit so as to determine a wireless communication partner. When the operator selects the information displayed by the display unit while the first detection unit performs a detection process to detect the beacon, the control unit terminates the detection process of the first detection unit and executes connection processing with a wireless communication device specified by the selected information.

The second wireless communication device includes a second connection unit and a second transmission unit. The second connection unit connects to a network configured by a base station at a plurality of frequencies. When search request information is detected while the second wireless communication device is in a wireless reception waiting state on the network connected by the second connection unit, the second transmission unit transmits a signal including self-identification information as the response signal.

Notable features of Claim 1 include the interface unit, the first transmission unit, the first determination unit, and the display unit. By virtue of the operation of these features, the

first wireless communication device can search for a partner wireless communication device capable of performing an operator selected function, such as a printing function, for example.¹

Serceki is understood to relate to a software tool that runs on a computer with wireless communication capabilities (*see* paragraph 4). The software tool detects a presence of wireless networks and displays related information on the computer (*see* paragraph 4). *Serceki* discusses that a Graphical User Interface (GUI) 126 includes a graphical representation 128 of communication activity on various channels of 802.11b networks and a connection information status area 145 displaying various channels identified in the graphical representation 128 (*see* paragraph 26). *Serceki* also discusses that active scanning may be employed, wherein a probe request in accordance with the 802.11 standard is transmitted on each of a plurality of channels (*see* paragraph 32). An Access Point (AP) responds to the probe request with a probe response that contains the AP's Media Access Control (MAC) address and network identifier information (*see* paragraph 32). If no probe response is received within a predetermined period of time, it is determined that no AP is available on that channel (*see* paragraph 32).

As best understood by Applicants, the software tool of *Serceki* does not enable an operator thereof to specify a data processing function and to search for a communication device capable of performing the data processing function selected by the operator. Moreover, the computer running the software tool is not understood to be connected to an AP when a probe request is sent to that AP. Instead, the computer is understood merely to tune to a channel, transmit the probe request, await a response, tune to a next channel, and repeat this process for each channel.

¹ Any examples presented herein are intended for illustrative purposes and are not to be construed to limit the scope of the claims

In summary, nothing has been found in *Serceki* that is believed to teach or suggest a wireless communication device that includes an “interface unit adapted to receive a selection of a data processing function selected by an operator,” a “first transmission unit adapted to transmit a search request signal, to search for the wireless communication device capable of performing the data processing function selected by the operator, to a wireless device connected to the network connected to by said first connection unit,” a “second detection unit adapted to detect, among wireless communication devices connected to the network connected to by said first connection unit, a wireless communication device capable of performing the data processing function selected by the operator, based on a response signal that the wireless communication device connected to the network connected to by first said connection unit has transmitted in response to the search request signal transmitted by said first transmission unit,” and a “display unit adapted to selectably display information associated with the wireless communication device detected by said second detection unit so as to determine a wireless communication partner,” as recited in Claim 1. Accordingly, Applicants submit that Claim 1 is not anticipated by *Serceki*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e).

Independent Claims 2 and 13 include features sufficiently similar to those of Claim 1 that these claims are believed to be patentable over *Serceki* for at least the reasons discussed above.

The aspect of the present invention set forth in Claim 10 is directed to a wireless communication device that is configured to switch between a history search mode and a new search mode, and that executes a communication process in each mode. In the history search mode, the wireless communication device communicates with a partner wireless communication device that had been communicated with previously. In the new search mode, the wireless

communication device communicates with a newly searched for partner wireless communication device.

The wireless communication device includes a storage unit, an instruction unit, a beacon detection unit, a search unit, a first display unit, a second display unit, and a wireless communication establishment process unit. The storage unit stores device identification information and network identification information of a partner to which the wireless communication device has been connected previously. The instruction unit is operated by a user to select one of the history search mode and the new search mode. The beacon detection unit operates in the new search mode and that detects a beacon. In the new search mode, the search unit compares network identification information included in the detected beacon with the network identification information stored in the storage unit. If there is a match in the compared network identification information, the search unit causes the detection unit to detect another beacon. If new network identification information is detected, the search unit searches for a partner wireless communication device connected to a network configured by a base station that transmitted the beacon, based on the new network identification information. In the new search mode, the first display unit selectably displays device identification information of a wireless communication device found by the search unit. If the history search mode is selected by the instruction unit, the second display selectably displays the device identification information of a wireless communication device stored in the storage unit. When device identification information displayed by one of the first and second display units is selected, the wireless communication establishment process executes a wireless communication establishment process with the wireless communication device specified by the selected device identification information.

Notable features of Claim 10 are the search unit and the first and second display units. By virtue of the operation of these features, the operator of the wireless communication device can view and select device identification information in accordance with a mode (*i.e.*, new search mode and history mode) selected by the operator, for example.

Zero is understood to relate to a “Wireless Zero Configuration Service” for a computer running the Windows XP operating system (*see* Title). *Zero* discusses that scanning can be performed to detect wireless networks, that information identifying detected wireless networks can be displayed, and that scanning can be performed again if a user presses a “Refresh” button (*see* pages 2 and 3). *Zero* also discusses that a priority wireless network field can be set for each wireless network that has been joined previously, and that attempts to join preferred wireless networks can be performed automatically based on the information included in the priority wireless network fields (*see* pages 1 and 2). In addition, *Zero* discusses that the Wireless Zero Configuration Service can attempt to connect to various types of networks, in a variety of corresponding preference orders (*see* pages 3 and 4). However, as best understood by Applicants, nothing in *Zero* teaches or suggests that the Wireless Zero Configuration Service gathers, much less displays, device identification information of devices that are connected to a network to which the Wireless Zero Configuration Service is connected.

In summary, nothing has been found in *Zero* that is believed to teach or suggest a wireless communication device that includes “a search unit adapted to, in the new search mode, compare network identification information included in the detected beacon with the network identification information stored in said storage unit, cause said detection unit to detect another beacon, if there is a match in the compared network identification information, and search for a partner wireless communication device connected to a network configured by a base station that

transmitted the beacon, based on new network identification information, if the new network identification information is detected,” and “a first display unit adapted to, in the new search mode, selectably display device identification information of a wireless communication device found by said search unit,” as recited in Claim 10. Accordingly, Applicants submit that Claim 10 is not anticipated by *Zero*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 102(a).

Independent Claim 14 includes features sufficiently similar to those of Claim 10 that Claim 14 is believed to be patentable over *Zero* for at least the reasons discussed above.

The aspect of the present invention set forth in Claim 11 is directed to a wireless communication system that includes first and second wireless communication devices. The first wireless communication device includes an interface unit, a discrimination unit, a determination unit, and a display unit. The interface unit receives a selection of a processing function selected by an operator. The discrimination unit discriminates a type of device capable of executing a processing function selected by the operator. When receiving beacons transmitted from devices on wireless networks, the determination unit determines whether device identification information corresponding to the type discriminated by the discrimination unit is included in the received beacons. In accordance with a determination result determined by the determination unit, the display unit selectably displays information associated with a device that transmitted a beacon including the device identification information corresponding to the type discriminated by the discrimination unit. The display unit does not display information associated with a device that transmitted a beacon not including the device identification information corresponding to the type discriminated by the discrimination unit.

The second wireless communication device has an informing unit that includes device identification information indicating a function into a beacon and transmits the beacon to the wireless network. When information of the second wireless communication device among information displayed by the display unit is selected, a process for establishing a communication between the first and second wireless communication devices is executed.

Notable features of Claim 11 include the interface unit, the discrimination unit, the determination unit, and the display unit. By virtue of the operation of these features, the operator of the first wireless communication device is able to select a particular type of device capable of executing a processing function (*e.g.*, a printer, a camera, a storage, a display, or a facsimile) before a wireless connection is established, and is able to select a partner device for establishing a wireless connection based on the type selected by the operator, for example.

Serceki discusses that a monitoring application scans through all possible channels, displays information indicative of an activity level on each channel, and permits a user to select a channel having an access point with which to associate (*see* paragraph 11). A user can cause the monitoring application to scan all possible channels to determine whether any access points are operating on any of the channels (*see* paragraph 11). If the monitoring application detects a presence of an access point operating on a particular channel, the monitoring application determines a communication activity level associated with that access point and shows information on a display indicative of the activity level (*see* paragraph 11). The monitoring application can display a Signal-to-Noise Ratio (SNR) for each channel, which permits the user to determine which channels have operating access points and a relative signal strength associated with each access point (*see* paragraph 11).

Serceki also discusses that the computer running the monitoring application scans each channel either passively or actively (*see* paragraph 12). Passive scanning includes tuning a radio module to a channel frequency and waiting a predetermined period of time for a beacon frame from an access point (*see* paragraph 12). The beacon frame includes a MAC address of the access point and an identifier value that uniquely identifies the network to which the access point connects (*see* paragraph 12). In the context of an IEEE 802.11 network, the identifier value that uniquely identifies the network is referred to as a Service Set Identifier (SSID) (*see* paragraph 12). As best understood by Applicants, an access point is the only type of device for which the monitoring application can search. That is, an operator of the monitoring application is not understood to be enabled to specify a type of device capable of executing a processing function. Further, because access points are the only type of device that generates a beacon, the monitoring application is not understood to determine whether the device that transmitted the beacon is an access point. Accordingly, when the computer running the monitoring application receives the beacon, the monitoring application is not understood to determine whether device identification information received in a beacon corresponds to a particular type, much less determine whether the device identification information corresponds to a type selected by the operator. Moreover, the monitoring application is not understood to display information associated a device determined to be of a type selected by the operator.

In summary, nothing has been found in *Serceki* that is believed to teach or suggest a wireless communication device that includes an “interface unit adapted to receive a selection of a processing function specified by an operator,” a “discrimination unit adapted to discriminate a type of device capable of executing the processing function selected by the operator via the interface unit,” a “determination unit adapted to, when receiving beacons transmitted from

devices on wireless networks, determine whether device identification information corresponding to the type discriminated by said discrimination unit is included in the received beacons,” and a “display unit adapted to, selectably display information associated with a device that transmitted a beacon including the device identification information corresponding to the type discriminated by said discrimination unit, and not to display information associated with a device that transmitted a beacon not including the device identification information corresponding to the type discriminated by said discrimination unit,” as recited in Claim 11. Accordingly, Applicants submit that Claim 11 is not anticipated by *Serceki*, and respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a).

Independent Claims 12 and 15 include features sufficiently similar to those of Claim 11 that these claims are believed to be patentable over *Serceki* for at least the reasons discussed above.

Ito et al. is understood to relate to a system for causing plural devices corresponding to communication methods of different formats to be recognized as a single communication system (*see* col. 1, lines 7-14). Nothing has been found in *Ito et al.* that is believed to remedy the deficiencies of *Serceki* or *Zero* discussed above.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and an early passage to issue of the present application.

No petition to extend the time for responding to the Office Action is deemed necessary for this Amendment. If, however, such a petition is required to make this Amendment timely filed, then this paper should be considered such a petition and the Commissioner is authorized to charge the requisite petition fee to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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